

CHLA Stem Cell Training Grant

Grant Award Details

CHLA Stem Cell Training Grant

Grant Type: Research Training II

Grant Number: TG2-01168

Project Objective: The objective is to provide stem cell training, including the clinical and ethical implications of stem cell research, to post-doctoral and clinical fellows at Childrens Hospital Los Angeles (CHLA).

Investigator:

Name:	David Warburton
Institution:	Children's Hospital of Los Angeles
Type:	PI

Award Value: \$5,020,920

Status: Closed

Progress Reports

Reporting Period: Year 4

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Reporting Period: Year 5

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Reporting Period: Year 6

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Reporting Period: NCE

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Grant Application Details

Application Title: Stem Cell Training Grant

Public Abstract: This Level II Training Grant will support seven PhD Post-Doctoral and three MD Clinical Fellows for training in stem cell biology, and the clinical and ethical implications of stem cell research. The program is based in one of the top six of the nation's pediatric stand alone Institutions. Over the past 25 years, we have built an internationally renowned research program in stem cell biology and its clinical applications. The program was founded on the fields of human hematopoietic stem cell biology, transplantation and gene therapy. In the past two decades, integration of research in developmental biology and tissue regeneration have expanded the reach of the program into other types of somatic stem cells including lung, pancreas, liver, gut, bladder and mesenchymal tissue. In the past 6 years, we have developed expertise in human embryonic stem cell (hESC) culture and differentiation and have established an hESC tissue culture core. A unique focus of Stem Cell Training will be on applications to pediatric disorders such as diabetes, monogenic inherited disorders (cystic fibrosis, muscular dystrophy, sickle cell disease, etc), and congenital birth defects. It is our central hypothesis that childhood disorders will be especially responsive to therapies produced by the use of stem cells; advances in the use of stem cells to treat childhood illnesses will then lead the way to treatments for the many disorders that occur later in life. The training program includes: a didactic course on "Stem Cell Biology, Research Methods and Stem Cell Therapies", a course titled "The Ethics of Stem Cell Research and Therapies" that will review the ethical, legal and social implications of research with human stem cells, participation in multiple existing training activities, an introductory training in laboratory methods in hESC and a didactic training course taught in concert with the [REDACTED]. A Steering Committee with stem cell researchers, clinical physician/scientists and medical educators will oversee selection and supervision of trainees, the mentoring process, and other activities of the training program. The complex biomedical environment and the strength of stem cell research combine to provide a rich milieu for training the next generation of physicians and scientists who will use stem cells as the basis for research and therapy.

Statement of Benefit to California:

This Level II Training Grant will continue to support seven PhD Post-Doctoral and three MD Clinical Fellows for training in stem cell biology, and the clinical and ethical implications of stem cell research. The program is based in one of the top six of the nation's pediatric stand alone Institutions, located in California. Over the past 25 years, we have built an internationally renowned research program in stem cell biology and its clinical applications. The program was founded on the fields of human hematopoietic stem cell biology, transplantation and gene therapy. In the past two decades, integration of research in developmental biology and tissue regeneration have expanded the reach of the program into other types of somatic stem cells including lung, pancreas, liver, gut, bladder and mesenchymal tissue. In the past 6 years, we have developed expertise in human embryonic stem cell (hESC) culture and differentiation and have established an hESC tissue culture core. A unique focus of Stem Cell Training will be on applications to pediatric disorders such as diabetes, monogenic inherited disorders (cystic fibrosis, muscular dystrophy, sickle cell disease, etc), and congenital birth defects. It is our central hypothesis that childhood disorders will be especially responsive to therapies produced by the use of stem cells; advances in the use of stem cells to treat childhood illnesses will then lead the way to treatments for the many disorders that occur later in life. The training program includes: a didactic course on "Stem Cell Biology, Research Methods and Stem Cell Therapies", a course titled "The Ethics of Stem Cell Research and Therapies" that will review the ethical, legal and social implications of research with human stem cells, participation in multiple existing training activities, an introductory training in laboratory methods in hESC and a didactic training course taught in concert with [REDACTED]. A Steering Committee with stem cell researchers, clinical physician/scientists and medical educators will oversee selection and supervision of trainees, the mentoring process, and other activities of the training program. The complex biomedical environment and the strength of stem cell research combine to provide a rich milieu for training the next generation of physicians and scientists who will use stem cells as the basis for research and therapy. This will provide unique benefits to the State of California and its citizens by providing a superbly trained group of stem cell experts whose work is focused on relieving childhood diseases in California. The trainees in this program will also strengthen and accelerate our research efforts in this field.

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